

Fig. 1 PRIOR ART

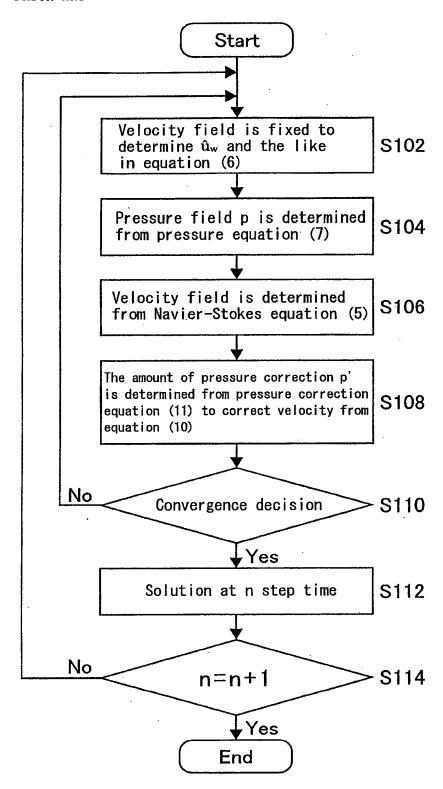


Fig. 2

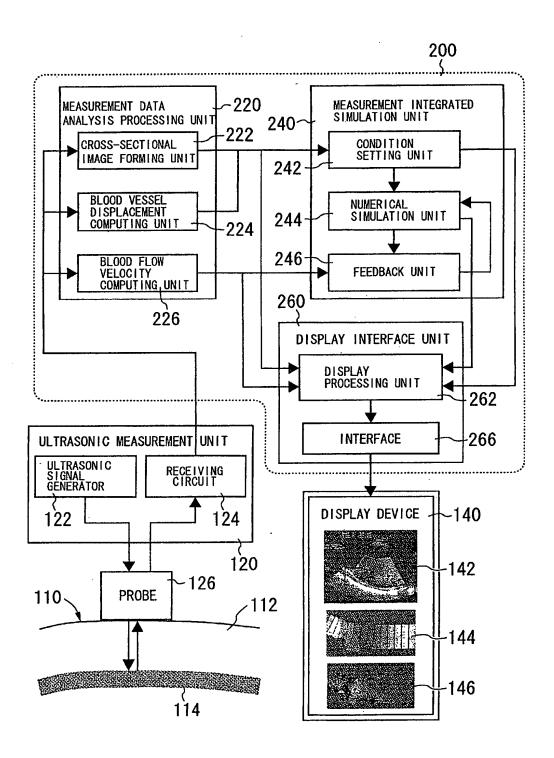


Fig. 3

Display example of color Doppler image

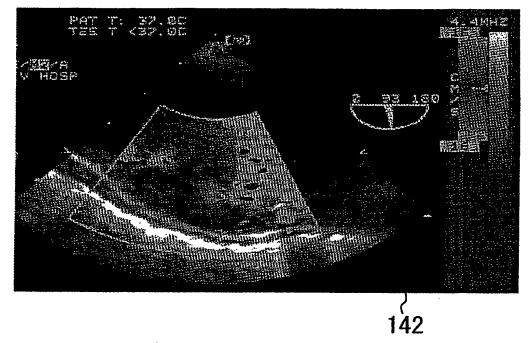


Fig. 4

Computational lattices for measurement integrated simulation (32 by 20)

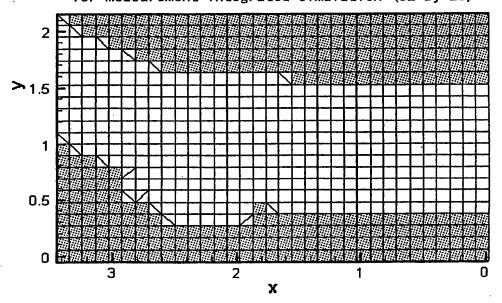
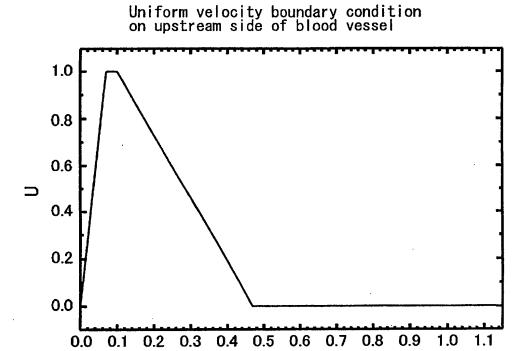


Fig. 5



Time [s]

Fig. 6

Definition of representative points

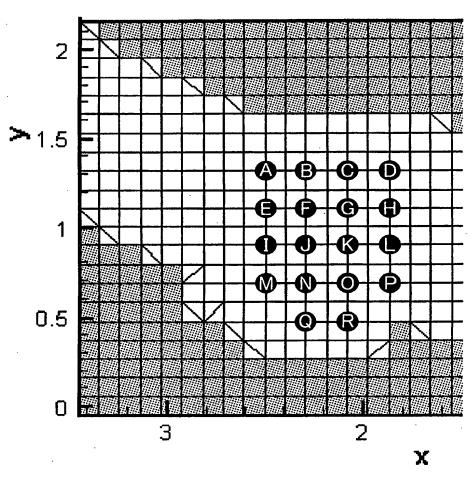
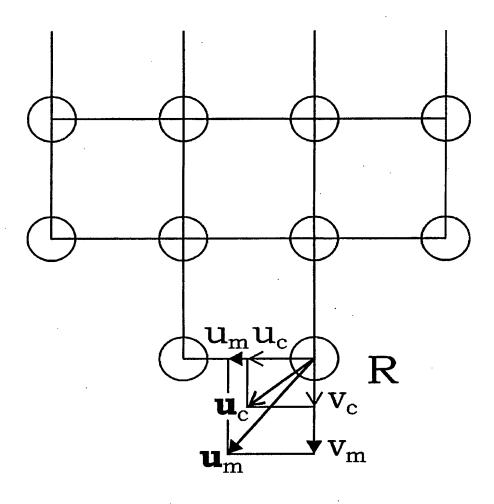


Fig. 7

Explanatory view of feedback



$$\mathbf{f} = -K \left(\frac{\mathbf{u}_c \circ \mathbf{u}_m}{\left| \mathbf{u}_m \right|^2} - 1 \right) \mathbf{u}_m$$

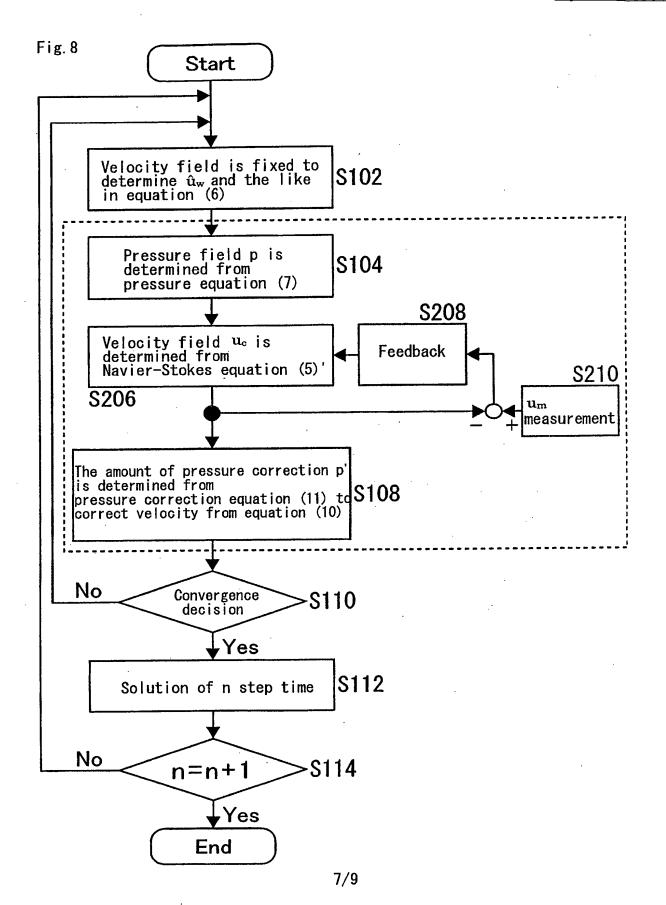


Fig. 9A

Result of measurement integrated simulation (t=0.2s)

Velocity vector and pressure distribution in blood vessel

2
>1.5

1
0.5

3
2
1
0
3

Fig. 9B
Result of measurement integrated simulation (t=0.2s)

X

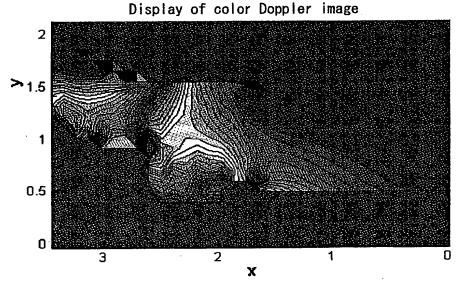


Fig. 10A

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Comparison of arithmetic accuracy between measurement integrated simulation and numerical simulation (comparison at representative point R)

Time change of u velocity component

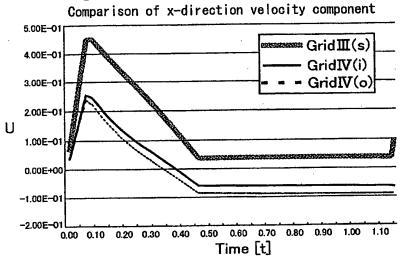


Fig. 10B

Comparison of arithmetic accuracy between measurement integrated simulation and numerical simulation (comparison at representative point R)

